

University of Georgia

Transplant onion response to Goal and pendimethalin mixtures.

Trial ID: Onion7-05

Study Dir.: Stanley Culpepper

Location: VORF

Investigator: Stanley Culpepper

Reps: 4

Plots: 6 by 25 feet

Spray vol: 14.8 gal/ac

Mix size: 1 liters (min .77168)

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Appl Stg	Amt to Measure	Plot No. By Rep				
								1	2	3	4	
1	Pendimax	3.3	EC	2	PT/A	transpla	A	16.89 ml/mx	101	205	307	402
2	Prowl H20	3.8	AS	1.76	PT/A	transpla	A	14.86 ml/mx	102	203	305	403
3	Pendimax	3.3	EC	2	PT/A	transpla	A	16.89 ml/mx	103	208	306	407
	Goal 2 XL	2	EC	1.5	PT/A	transpla	A	12.67 ml/mx				
4	Pendimax	3.3	EC	2	PT/A	transpla	A	16.89 ml/mx	104	206	304	401
	Goal 2 XL	2	EC	3	PT/A	transpla	A	25.34 ml/mx				
5	Pendimax	3.3	EC	2	PT/A	transpla	A	16.89 ml/mx	105	207	308	405
	GoalTender	4	L	0.75	PT/A	transpla	A	6.334 ml/mx				
6	Pendimax	3.3	EC	2	PT/A	transpla	A	16.89 ml/mx	106	201	303	404
	GoalTender	4	L	1.5	PT/A	transpla	A	12.67 ml/mx				
7	Prowl H20	3.8	AS	1.76	PT/A	transpla	A	14.86 ml/mx	107	204	302	406
	GoalTender	4	L	1.5	PT/A	transpla	A	12.67 ml/mx				
8	Non-treated								108	202	301	408

Sort Order: Treatment

Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
105.563	ml	Pendimax	3.3	EC	
37.158	ml	Prowl H20	3.8	AS	
47.503	ml	Goal 2 XL	2	EC	
39.586	ml	GoalTender	4	L	

* 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1 liters (mix size basis).

* Product amount calculations increased 25 % for overage adjustment.

Trial Comments

OBJECTIVE: Evaluate transplant onion tolerance to pendimethalin/oxyflourfen combinations.

VISUAL INJURY:

1. Injury was minimal throughout the season with less than 10% injury.

PRIMROSE CONTROL:

1. A very light infestation of primrose was present and did not emerge until Feb.
2. Control by pendimethalin mixtures was non-existent; however, oxyflourfen mixtures provided excellent control.

ONION YIELD:

1. As expected with little injury and only late emerging primrose, the number and weight of onions harvested were similar among herbicide treatments.
2. Even though primrose was late emerging and yield loss was not statistical from this competition, the trend was evident in the non-treated control.

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Weed Code	onion injury percent	onion injury percent	onion injury percent	onion injury percent	OEOLA control percent	Yield onion #	Yield onion lb/10ft		
Crop Code									
Rating Data Type									
Rating Unit									
Rating Date	Dec-20-05	Jan-08-06	Jan-08-06	Apr-06-06	Apr-06-06	May-10-06	May-10-06		
Assessed By	AM	SC	AM	SC	SC	SC	SC		
Trt-Eval Interval	10 DA-A	29 DA-A	29 DA-A	117 DA-A	117 DA-A	151 DA-A	151 DA-A		
Trt No.	Treatment Name	Rate	Rate	Rate	Rate	Rate	Rate		
		Unit							
			1	2	3	4	5	6	7
1	Pendimax	2 PT/A	0 a	4 b	0 a	0 a	0 b	27 a	29 ab
2	Prowl H20	1.76 PT/A	0 a	4 b	0 a	0 a	0 b	25 a	27 ab
3	Pendimax Goal 2 XL	2 PT/A 1.5 PT/A	0 a	3 b	0 a	0 a	100 a	26 a	27 ab
4	Pendimax Goal 2 XL	2 PT/A 3 PT/A	0 a	5 b	0 a	0 a	100 a	26 a	26 ab
5	Pendimax GoalTender	2 PT/A 0.75 PT/A	0 a	5 b	0 a	0 a	100 a	25 a	27 ab
6	Pendimax GoalTender	2 PT/A 1.5 PT/A	0 a	4 b	0 a	0 a	100 a	27 a	28 ab
7	Prowl H20 GoalTender	1.76 PT/A 1.5 PT/A	0 a	8 a	0 a	0 a	100 a	28 a	29 a
8	Non-treated		0 a	0 c	0 a	0 a	0 b	26 a	24 b
LSD (P=.05)			0.0	2.4	0.0	0.0	0.0	5.0	4.5
Standard Deviation			0.0	1.6	0.0	0.0	0.0	3.4	3.1
CV			0.0	38.96	0.0	0.0	0.0	13.03	11.43
Bartlett's X2			0.0	11.414	0.0	0.0	0.0	3.863	8.623
P(Bartlett's X2)			.	0.076	.	.	.	0.795	0.281

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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 Location: VORF Investigator: Stanley Culpepper

GENERAL TRIAL INFORMATION

Study Director: Stanley Culpepper **Title:** Ext. Weed Science
Affiliation: Univ. of Georgia
Postal Code: 31794
Investigator: Stanley Culpepper **Title:** Ext. Weed Science
Affiliation: Univ. of Georgia
Postal Code: 31794

TRIAL LOCATION

City: Vidalia **Trial Status:** completed
State/Prov.: GA **Trial Reliability:** good
Postal Code: _____ **Initiation Date:** Dec-08-05
Country: USA **Planned Completion Date:** _____
E-Longitude of LL Corner °: _____ **N-Latitude of LL Corner °:** _____
Altitude of LL Corner: _____ **Unit:** _____ **Angle y-axis to North °:** _____
Directions:

COOPERATOR/LANDOWNER

Cooperator: _____ **Country:** _____
Org: _____ **Phone No:** _____
Address 1: _____ **Fax No:** _____
Address 2: _____
City: _____
State/Prov: _____
Postal Code: _____

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N
Guidelines: _____ **Guideline Description:** _____

Objective:

Conclusions:

CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.	OEOLA	cutleaf eveningprimrose	

Crop 1: ALLCE ONION **Variety:** Century
Planting Date: Dec-08-05 **Planting Method:** transplant
Rate: 1 4.5 inch **Depth:** 1 in **Perennial Age:** _____
Row Spacing: 15 inch **Spacing Within Row:** 4.5 inch **Seed Bed:** flat
Soil Temperature: 60 F **Soil Moisture:** fair/irrigat **Emergence Date:** _____

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 25 FT **Reps:** 4
Site Type: Vidalia Research Farm
Tillage Type: Conventional **Study Design:** RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance:

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No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.							

SOIL DESCRIPTION

% Sand: 86 % OM: 0.47 Texture: loamy sand
 % Silt: 10 pH: 5.9 Soil Name: _____
 % Clay: 4 CEC: _____ Fert. Level: _____

ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

MOISTURE CONDITIONS

No.	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: irrigated aggressively

Closest Weather Station: _____ Distance: _____ Unit: __

APPLICATION DESCRIPTION

	A
Application Date:	Dec-10-05
Time of Day:	9 am
Application Method:	broadcast
Application Timing:	2DATRAN
Applic. Placement:	overtop
Air Temp., Unit:	50 F
% Relative Humidity:	64
Wind Velocity, Unit:	0 mph
Dew Presence (Y/N):	n
Water Hardness:	
Soil Temp., Unit:	54 F
Soil Moisture:	wet
% Cloud Cover:	0

CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	ALLCE .
Stage Scale:	2DATRANS
Height, Unit:	4 in

WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code, Stage:	OEOLA .
Stage Scale:	not up
Density, Unit:	0.1 ydsq

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APPLICATION EQUIPMENT

	A
Appl. Equipment:	backpack
Operating Pressure:	24
Nozzle Type:	flat fan
Nozzle Size:	11002
Nozzle Spacing, Unit:	18 in
Nozzles/Row:	1
Band Width, Unit:	
Boom Length, Unit:	4.5 feet
Boom Height, Unit:	15 inch
Ground Speed, Unit:	3 mph
Incorporation Equip.:	
Hours to Incorp.:	
Incorp. Depth, Unit:	
Carrier:	water
Spray Volume, Unit:	14.8 GPA
Spray pH:	
Propellant:	CO2
Tank Mix (Y/N):	N

Trt No	Treatment Application Comment